


<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number (Optional) <b>J1036.0021/P021</b>	
	Application Number <b>10/589,335-Conf. #6523</b>	Filed <b>March 6, 2007</b>	
	First Named Inventor <b>Carlo Pompei et al.</b>		
	Art Unit <b>1781</b>	Examiner <b>H. F. Pratt</b>	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> <p><input type="checkbox"/> applicant /inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>31,063</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____</p> </div> <div style="width: 50%; text-align: center;">               _____              Signature              _____              Stephen A. Soffen              Typed or printed name              _____              (202) 420-4879              Telephone number              _____              August 20, 2010              Date           </div> </div>			

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Carlo Pompei et al.

Application No.: 10/589,335

Confirmation No.: 6523

Filed: March 6, 2007

Art Unit: 1781

For: METHOD FOR PREPARING  
HYPOALLERGENIC FRUIT AND/OR  
VEGETABLE DERIVATIVES

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Examiner: H. F. Pratt

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

MS AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**INTRODUCTORY COMMENTS**

Applicants respectfully request a review of the legal and factual bases for the rejections in the above-identified patent application. Pursuant to the guidelines set forth in the Official Gazette Notice of July 12, 2005 for the Pre-Appeal Brief Conference Program, favorable reconsideration of the subject application is respectfully requested in view of the following remarks.

In the Final Office Action dated April 20, 2010, claims 1-5, 10-13, 28, 29, 32, and 33 were rejected under 35 U.S.C. §103(a) as being unpatentable over European Patent No. 0137671 ("Winterson") or European Patent No. 0174594 ("Lawhon") in view of U.S. Patent No. 2,626,706 ("Bishop"). Claims 6-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Winterson or Lawhon/Bishop combination further in view of U.S. Publ. Patent App. No. 2005/00556161 ("Le Rouzic") and U.S. Patent No. 5,653,673 ("Desai"). Claims 14-17 and 25-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Winterson or Lawhon in view of

Bishop, further in view of BG61472 (“Todorov”). Claims 19-24, 30, 31, 34, and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Winterson or Lawhon/Bishop/Todorov combination, further in view of U.S. Patent No. 4,413,017 (“Loader”). These rejections are respectfully traversed because no motivation to combine the cited prior art references exists.

Claims 1 and 33-35 were also rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for failing to explicitly recite a concentration. Claim 1 was amended as requested by the Examiner to address the § 112 rejection, and it is believed that the rejection is moot. The rejection of claims 33-35 is addressed below.

#### NO MOTIVATION TO COMBINE THE REFERENCES EXISTS

A person of ordinary skill in the art would not have been motivated to combine either Winterson or Lawhon with Bishop in the manner asserted. Claim 1 of the present application recites a method for preparing a hypoallergenic fruit and/or vegetable derivative with reduced content of Lipid Transfer Protein (“LTP”), a pan-allergen.

Winterson discloses a method of producing a juice concentrate without altering the flavor of the juice. Winterson does this by separating the juice into liquid and pulp components, ultrafiltering the liquid portion, pasteurizing the pulp component, freeze concentrating the liquid component, and recombining the liquid and pulp components. Winterson at 2, lines 19-27. Lawhon also discloses a method of producing a sterile, concentrated juice with “improved flavor and reduced acid.” Lawhon at 1, line 13. Neither Winterson nor Lawhon provides a motivation to wash the pulp with acid to obtain a hypo-allergenic pulp as claimed. Winterson uses pasteurization to sterilize the pulp. Winterson at 4, lines 8-11. Lawhon discloses an “inactivation and concentration” step wherein “undesirable spoilage microorganisms are inactivated,” preferably by sterilizing at a temperature of 50 – 70 °C. Lawhon at 9, lines 30-36 and at 10 lines 13-15. Lawhon also discloses “heating, chemically treating, desiccation, UV radiation, and x-rays” to deactivate “spoilage microorganisms.” Lawhon at 10 lines 9-13. LTP, however, is neither a microorganism nor a

microbe as asserted in the Office Action. LTP is instead a protein naturally occurring in fruits and vegetables, to which some people have an allergy. Specification, ¶ [0006]. None of the references, Winterson, Lawhon, or Bishop, disclose or suggest any effect or aim to reduce allergenic compounds in the treated product. Significantly, the present application distinguishes between reducing LTP in the product and sterilizing the product by disclosing an entirely separate step to preserve or sterilize the product. Specification at page 7, lines 9-17.

Furthermore, pasteurization, the preferable method of reducing “microorganisms” in both Winterson and Lawhon, is ineffective on LTP as LTP is a highly thermoresistant protein. Pasteurization at 86 to 99 °C for 2 to 20 seconds as disclosed by Winterson is ineffective in reducing LTP content. See the attached article, Brenna, et al., *Technological Processes To Decrease the Allergenicity of Peach Juice and Nectar*, 48 J. AGRIC. FOOD CHEMISTRY 493 (2000).

Lawhon is specifically directed to treatment of orange or grapefruit juice. Lawhon at 2, line 17. No motive exists to add an acid washing step because the pulp is already inherently acidic. Lawhon in fact discloses a “deacidification” step to create “reduced-acid frozen concentrated orange juice.” Lawhon at 11, lines 12-35 and at 12, lines 1-10. Accordingly, one of ordinary skill in the art would have no motive to modify Lawhon to add a step of washing the pulp with an acidic solution, as acidifying the pulp would be directly counter to Lawhon’s ambition.

A person of ordinary skill in the art would not combine Bishop with either Winterson or Lawhon. The process for pectin recovery disclosed in Bishop includes the steps of treating sugar beet pulp with a mixture of alcohol and benzene (Bishop, col. 1, lines 43-47), then digesting the pulp residue by heating at 180-190 °F for 1 to 2 hours (Bishop, col. 2, lines 40-42). Next, Bishop discloses separating the pulp by centrifugation (Bishop, col. 2, line 55 – col. 3, line 2), collecting a filtrate which contains pectin in solution (Bishop, col. 3, lines 2-4), and finally precipitating the pectin using an alcohol solution (Bishop, col. 3, lines 27-30). No aspect of Bishop indicates or suggests that the acidification in Bishop is designed to eliminate microorganisms as asserted by the Examiner. In fact, the acidification step in Bishop “hydrolyzes and dissolves those pectin materials not previously removed from the cell fibres” and thereby allows for easier isolation of pectin.

Bishop, col. 5, lines 51-53. Bishop is merely directed to a process for extracting the pectin from beet pulp to increase the value of the waste by-product. As such, there would be no motivation to combine Bishop with either Winterson or Lawhon.

In particular, one of ordinary skill would have no expectation that a process tailored for pectin extraction could be applied in the field of allergens or proteins. Further, a person of ordinary skill in the art would not seek to apply Bishop's process for pectin extraction to the field of allergens or proteins. Pectin is a compound belonging to the family of polysaccharides; thus, it is not chemically analogous to LTP, which is a protein. Bishop's intent is to isolate and purify the pectin from the beet pulp, not to render the beet pulp hypo-allergenic. Furthermore, one of ordinary skill would not combine Bishop, which removes pectin from beet pulp, with Lawhon, which expressly cites the benefits and desirable characteristics of pectin in orange juice. Lawhon at 2, lines 14-17.

The Examiner asserts that "[i]t would have been obvious to combine the references since the method [of Bishop] shows washing a pulp with acid, which would have inherently reduced the microorganisms, just as applicants are" and that "Winterson is also to producing an inherently sterile fruit pulp by pasteurizing it, and Bishop also produces an inherently sterile vegetable pulp since it has been treated with acids which are known to reduce microbes." Office Action at 10. However, as stated previously, LTP is not a microorganism. Furthermore, Bishop's acidification step is to hydrolyze and dissolve pectin in sugar beet pulp, a wholly different purpose, and would not suggest acidification for the purpose of reducing LTP content from a standpoint of obviousness.

Finally, Bishop is non-analogous art, outside of the scope of Applicants' field of endeavor. Specifically, it is directed to extracting pectin from sugar beet waste material, whereas the claimed process is directed to eliminating LTP, a pan-allergen, from the serum and pulp of fruits and/or vegetables. Thus, a person of ordinary skill in the art would not look to or use the process disclosed by Bishop in order to manufacture a hypo-allergenic fruit and/or vegetable derivative, i.e., Bishop would not have "logically . . . commended itself to an inventor's attention in considering his or her invention as a whole." In re Clay, 966 F.2d 656 (Fed. Cir. 1992); MPEP 2141.01(a).

For all of the above reasons, the rejection of claim 1 should be withdrawn. The remaining claims depend from claim 1 and are submitted to be allowable for the same reason. Le Rouzic, Desai, Todorov, and Loader are cited against dependent claims and do not cure the deficiencies of Winterson or Lawhon in view of Bishop discussed above.

A CONCENTRATION IS INHERENT TO CLAIM 1

Claims 33-35 recite the product obtained from the method of claim 1 which is a hypo-allergenic fruit and/or vegetable juice, nectar, jam, puree, or concentrate. These claims were rejected under 35 U.S.C. § 112, second paragraph, on the grounds that “no amounts or degrees of concentration are found in claim 1, it is not seen that the process of claim 1 would have produced such products.” Final Office Action at 2. As the specification makes clear, the recited step in claim 1 of adding the hypo-allergenic permeate to the hypo-allergenic pulp will result in the hypo-allergenic fruit and/or vegetable derivative being a juice, nectar, jam, puree, or concentrate depending on the pulp to permeate ratio. Specification at page 6, lines 10-15 and page 7, lines 2-8. The claims need not recite this ratio to render them clear and definite under 35 U.S.C. § 112, second paragraph.

Withdrawal of the rejections and allowance of all pending claims is respectfully solicited.

Dated: August 20, 2010

Respectfully submitted,

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